Abstract

The present invention performs gradation conversion linearly on an image signal when the image signal is darker than a preset value. Consequently, the dark region of the image is not distorted nonlinearly, and the gradations of shadows and hair can be reproduced in full richness. On the other hand, gradation conversion is performed nonlinearly on image signals if the image signal is brighter than a preset value. The nonlinear conversion in this case: (1) has a slope that effectively equalizes an average noise amplitude of the image signal without being based on the output gradation value, and (2) is offset so as to be continuous with the gradation conversion characteristic of the dark area gradation conversion unit. Through condition (1), the level-dependent noise in the bright region is equalized. Furthermore, through condition (2), gradation differences and gradation reversals do not occur at the boundary between the dark region and the bright region.